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APR 16 2007

Applicant: Marple
Application No.: 10/719,425
Request for Continued Examination
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REMARKS

Claims 1-26 and 28 have been cancelled to simplify prosecution of the remaining claims in this Request for Continued Examination. However, the applicant traverses all of the examiner's rejections of record and reserves the right to pursue further consideration of these cancelled claims without any prejudice by way of a continuation application or any other procedural vehicle available to him.

Similarly, the applicant contends that one of ordinary skill in the art would have read the specification in its entirety and understood that the previous amendment to the paragraph on page 20 by way of the paper dated August 30, 2006, would be implicitly understood, especially considering many of the other examples, as well as the other test results discussed in that specific example 4, were according to the same criteria offered in the now-cancelled amendment. Thus, as the applicant considers the temperature of the impact test to be inherently understood in the specification as originally submitted and with the belief that withdrawing the amendment will expedite prosecution of this Request for Continued Examination by refocusing the examiner's attention to the claims of record, the amendment has been cancelled and withdrawn.

Next, turning to claims 27 and 29, the applicant submits that the invention claimed therein is neither taught nor suggested by any of the art of record, hereby reiterating the previous arguments presented, with particular emphasis on the case law requirements for inherency, which the applicant respectfully contends have once again not been met.

Additionally, it is noted that Webber states at column 3 lines 50-52 that the separator may be two layers of microporous polypropylene. However, Webber goes on to state that each layer must be 0.001 inches—or approximately 25.4 microns—in thickness, which even for a single layer separator (as suggested subsequently in Webber) is over 10% thicker than the applicants' claims (meaning that 10% must be occupied by a volume of inactives, rather than materials having electrochemical capacity). To the extent a key feature of the applicants' invention is improved energy density for an FR6 cell, this difference would not be dismissed as trivial by those of ordinary skill in the art, especially considering the improved capacity to volume and service described in claims 27 and 29.

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More generally, Webber fails to specifically disclose an FR6-sized cell. Instead, he focuses on novel and non-obvious improvements to a specific electrolyte, stating "the particular arrangement or shape of the cell components forms no part of this invention" (col. 3, lines 53-55). Therefore, one of ordinary skill in the art would have no motivation to combine the references to arrive at the applicant's combination of an FR6-sized, Li/FeS₂ cell possessing the specific separator qualities, cell interfacial capacity to volume and (in the case of claim 29) performance characteristics as suggested by the examiner. The considerable volume of art in this field would further suggest that one of ordinary skill in the art is unlikely to arrive at such a simplistic hindsight reconstruction.

Of equal importance, only some of the properties of separators identified in the applicants' claims are even discussed in Callahan, and there is little if any discussion in Callahan as to whether or how these characteristics may affect electrochemical cells, and more specifically Li/FeS₂ cells, where issues with coating and particle size of FeS₂, with expansion of electrodes upon discharge for the chemical pairing and a host of other practical considerations familiar to those in the field make cell design for this system a rigorous and difficult proposition. Particularly, Callahan fails to disclose all of the properties in claims 27 and 29 and, in fact, only makes a vague of implication that the separators in Callahan could even achieve the thickness required by the applicants claims (*see* col. 6, lines 37-38, "and most preferably less than about 1 mil [25.4 microns]"). Therefore, Callahan also refutes the examiner's contention that Webber's disclosure of separator thickness alone would inherently result in the tensile stress, dielectric breakdown voltage and BET specific surface areas claimed by the applicant. Stated differently, as evidenced by Callahan, a simple reduction in the thickness of the separator does not necessarily lead to the properties described and claimed by the applicant, nor has the examiner demonstrated how one of ordinary skill in the art would make this conclusion based on the references cited.